Supply Lines With The Source

Newsletter of the Drinking Water and Groundwater Bureau
on the web at www.des.nh.gov

Fall 2008

Water System "As-Built" Plans are Essential
Now Required for All Systems

As-built plans, or record drawings, are a water system's final system plans that show the location of all critical system infrastructure, such as wells, pumphouse configuration, storage tanks, and underground facilities. The as-built plans are made from field measurements taken during the actual construction and recorded on the DES approved plans. Old and new systems rely on as-builts to plan and design future projects and to carry out repairs to damaged components. This summer, DES held a roundtable discussion with over a dozen small system stakeholders to discuss the need for as-builts and the best method to generate and retain these documents. All agreed that as-built plans are vital for both emergency response and routine water system maintenance. Time and money are wasted when constructing or attempting to repair a system without an accurate plan.

Existing systems without current as-built plans need to begin by adding information to a drawing (an existing plan, sketch, tax map, etc.) to document valves, blowoffs, service connections, pipe sizes, and depths. Whenever a system's infrastructure is changed (e.g., valve replacement), measurements to at least two ties to permanent surface locations should be recorded for each component.

Effective **March 31, 2009**, DES sanitary surveyors will begin listing the lack of as-built plans as a deficiency. If you don't have an as-built plan on file, you should begin to work with your operator as soon as possible to generate these important documents over the next three to five years, in time for your next sanitary survey. DES will also be requesting copies of as-built plans as part of all community water system emergency plan updates due **March 31, 2009**. If a system does not submit an as-built plan, it will be expected to develop one in time for the next emergency plan update and/or sanitary survey.

For new community water systems and new non-community water systems with extensive buried water distribution systems, such as campgrounds, the requirement for as-built plans will be enforced beginning with the 2009 construction season. Effective **March 31, 2009**, DES will not issue approvals to operate until all new public water system requirements are met, including the submittal of final as-built plans. DES will also inform municipalities of the approval status of the new water system.

Required information to be included in as-built plans is listed in Env-Ws 372.33 and 373.26 (available at www.des.nh.gov/organization/commissioner/legal/rules/index.htm#drinking) and should include, at a minimum:

- A general site plan, drawn to scale, showing the water system service area and location of all critical system infrastructure, such as wells, pumphouse configuration, storage tanks, and underground facilities.
- Details of major piping intersections and components, such as valves, blow-offs, and service connections, showing the type, sizes, depths, and measured dimensions from at least two fixed surface features.

Examples of as-built plans for small community water systems are available from DES. Look for more information in the coming months or contact David Kelly at (603) 271-2472 or david.kelly@des.nh.gov with any questions or comments. •

Updated Emergency Plans are due March 31, 2009.
See Page 4 for details!

Listening Session on Water Plan to be Part of Watershed Conference

Local officials, water suppliers, and the public will have an opportunity to weigh in on key statewide water resources issues during a two-hour workshop to be held during the annual Watershed Conference on Saturday, November 15 in Concord. The workshop will include the results of a survey of state and local decision makers and an overview of the latest draft of the state *Water Resources Primer* currently being compiled by DES. Portions of the *Primer* are expected to be available for public review in advance of the workshop. Both the *Primer* and the survey represent early steps in the process of developing a State Water Resources Plan. For more information about the *Primer* or the Water Plan process, contact Paul Susca at (603) 271-7061 or paul.susca@des.nh.gov. For more information about the Watershed Conference, a day-long, multi-track meeting on all aspects of river, lake, and watershed protection in New Hampshire, please visit www.nhlakes.org. •

Spotlight on ... A Watershed Management Plan for the Lake Sunapee Watershed

Everyday there are changes to the forests, fields, and other natural areas within New Hampshire's watersheds, and some of those changes affect surface water quality. Managing these changes to maintain water quality in a watershed is complex and often requires a coordinated effort.

With support from DES and the EPA, watershed management plans are being adopted to help manage human impacts upon wildlife, forest resources, water resources (e.g., including drinking water supply), and other vital natural resources. This past June, the Sunapee Area Watershed Coalition (SAWC), in conjunction with the Granite State Rural Water Association (GSRWA), published the final version of the "Management Plan for the Lake Sunapee Watershed." This plan will serve as a guide for community leaders to coordinate watershed protection and management activities.

In 2005, the Lake Sunapee Protective Association (LSPA) started a partnership with regional stakeholders to improve watershed management and the protection of the Lake Sunapee watershed. The Lake Sunapee watershed is largely undeveloped and the lake is a source of high-quality drinking water for 1,500 residents of Sunapee. However, trends in water quality monitoring data indicate decreasing levels of dissolved oxygen and increasing pollutant concentrations for certain quality parameters (e.g., phosphorus), raising concerns about how to protect the lake and its watershed from nonpoint source pollution.

In the winter of 2006, the LSPA formed the SAWC, which is made up of representatives of the six watershed towns, to develop a watershed management plan for Lake Sunapee.

The content of the watershed plan builds a solid base of information about land use patterns (existing and under modeled build-out conditions), water quality trends, stormwater impacts, protection measures, and potential contamination sources within the watershed. To further evaluate stormwater impacts, a "Monte Carlo" simulation method was employed to estimate total phosphorus loading within the watershed under current and future built-out land use conditions.

Using this information, the plan identifies eight water quality "concerns" (e.g., pollution from stormwater runoff) and recommends specific objectives and strategies to be implemented by leading or partnering agencies. For example, to reduce stormwater impacts upon water quality, the plan lists 11 strategies. These include:

- Incorporating low impact development design measures.
- Adopting local regulations that limit impervious area.
- Requiring vegetated riparian buffers.
- Increasing local understanding of stormwater technologies by having more local board members attend UNH's Center for Stormwater Technology Evaluation and Verification's stormwater trainings.

Community leaders across the watershed now have a more meaningful source of information for making future management and protection decisions to maintain water quality in the lake and throughout the watershed. The plan is the culmination of 13 months of work by the 12-member SAWC and represents a major step forward to protecting the Lake Sunapee watershed. For more information about the plan, contact LSPA Executive Director June Fichter at (603) 763-2210 or lspa@lakesunapee.org, or GSRWA at info@gsrwa.com or (603) 753-4055. ●

Improved Small Public Water System Help Center Coming October 2008

The Capacity Assurance program is revamping its technical assistance web page to better serve small water systems. DES provides ongoing technical assistance and outreach to public water systems through one-on-one meetings as well as organized workshops and seminars throughout the year. To support these efforts, our "Small PWS Help Center" provides immediate access to the most updated guidance available, including funding resources, compliance help, and a variety of other free technical and managerial resources. Contact our small system ombudsman, David Kelly, at (603) 271-2472 or david.kelly@des.nh.gov for assistance with small systems compliance issues, or visit www.des.nh.gov, and search for "Small PWS Help." ●

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Maine Adopts Rules to Keep Contaminant Sources Out of Wellhead Protection Areas

by Andy Tolman, Maine CDC Drinking Water Program, and
George Seel, Maine Department of Environmental Protection

The Maine Department of Environmental Protection (DEP) recently adopted regulations that will prevent oil products and other substances from polluting drinking water sources. In Maine, many millions of dollars have been spent cleaning up leaks from above-ground storage tanks (ASTs) near water supplies. In cases where a well was contaminated, even more money has been spent locating, installing, and connecting replacement wells.

In 2007, the DEP and the Maine CDC Drinking Water Program (DWP) worked with the legislature to limit the location and operation of above-ground storage of petroleum products, as well as facilities using hazardous materials in areas near both public water supply wells and private wells.

Specifically, the law and DEP regulations apply to certain land use activities and ASTs within a wellhead protection area or 1,000 feet of a public water supply well, whichever is greater, or 300 feet of a private drinking water well:

- New automobile graveyards and maintenance facilities, dry cleaners using hazardous solvents, metal plating/finishing operations, and commercial hazardous waste facilities are prohibited effective September 2008.
- New above ground storage tanks are prohibited effective September 2008.
- Home heating oil tanks are exempt from the law's siting restrictions; however, any new heating oil tank within either the wellhead protection area or 1,000 feet of a community supply well is required to meet new construction and installation standards (double walled tank, installed by a certified professional) as of July 2009.

The DEP is working on an implementation plan and education effort to help industries and contractors understand their responsibilities under the law. DEP and the DWP have recently completed a project to make it easier for tank installers and others to determine whether a planned facility will be affected by this law through the use of Google Earth and by publishing maps of regulated areas on DEP's website. See www.maine.gov/dep/gis/datamaps/index.htm for more information. •

Water Supply Land Grant Proposals Due

DES is now soliciting eligibility applications for Water Supply Land Grants. These grants are available to municipalities and water suppliers and will fund 25 percent of the cost of purchasing land or conservation easements critical to their drinking water quality. In order to be eligible, the water supply lands must be currently unprotected and within the wellhead protection area for a groundwater source or within the source water protection area and within five miles of a surface water source.

Eligibility applications are due November 3, 2008; these are brief preliminary applications. The more comprehensive final applications are due January 15, 2009. More information about this grant can be found at the DES website www.des.nh.gov/organization/divisions/water/dwgb/dwspp/land_acqui/index.htm or by contacting Holly Green at (603) 271-3114 or holly.green@des.nh.gov. •

After-Hours Emergencies

It's 1 a.m. and your pump house has been vandalized and an empty container of a toxic substance has been left behind, or perhaps it has rained continuously for 24 hours and the nearby river is flooding the treatment plant. You activate your emergency plan. An important step in that plan should involve contacting DES within 24 hours, but it's the middle of the night and no one is there. Who do you call?

In the event of a major emergency that could threaten the health of your customers or the integrity of your system occurring outside DES's normal working hours of 8 a.m. to 4 p.m. Monday through Friday, call the State Police Dispatch at 800-852-3411. Tell them who you are and that you are reporting a water system emergency and must contact the on-call emergency response person at DES.

It is important to be as specific as possible with both the State Police and the DES emergency response staff person who will be paged by the State Police dispatcher. The on-call DES emergency response staff person will immediately contact you to assess the emergency and provide access to additional resources as necessary. The State Police offices are aware of DES's on-call emergency response, but you must clearly indicate that your water system is experiencing an emergency that requires **immediate** DES assistance.

For all emergencies that conveniently happen during normal working hours, or that can wait until the next business day, contact the DWGB at (603) 271-2513 or contact your sanitary surveyor directly. •

Has It Really Been Six Years?

Your Updated Emergency Plan is Due By March 31, 2009

It's hard to believe, but it has been almost six years since most community water systems have submitted emergency plans to the DWGB. Every six years, community water systems are required to submit an updated emergency plan. The next due date for submitting an updated plan is March 31, 2009. Any plans received between January 1, 2009, and March 31, 2009, will be considered on time. All systems are on the same six-year cycle. So, even if your last emergency plan was submitted late and only recently received by DES, you still need to submit an updated copy within the time frame stated above.

Emergency plans must consist of an "all-hazards" approach that addresses many issues, including backup power and staff shortages. This is a great opportunity to review your plan and make any modifications, including staff changes or system changes, such as new sources. One of the most common planning issues requiring greater attention within emergency plans involves communication during a boil order. Many plans lack details and adequate information on how to implement a boil order and public notice. Public notice templates can be obtained electronically on DES's website at www.des.nh.gov/organization/divisions/water/dwgb/forms/index.htm. It is important to have these documents readily available if needed.

DES's Community Water System Emergency Plan Guide (2008) offers instructions and guidance concerning the requirements and content of an emergency plan as set forth in Env-Ws 360.15. It includes a number of blank templates for revising or creating a plan. Please review this updated guidance tool on our website, as it has some new important sections that must be addressed, including backup power capabilities. You are not required to reformat your existing plan as long as it includes the minimum requirements as found in the 2008 guide. Please note that some sections of the guide may or may not apply to your system. Larger systems may need to develop a more complex emergency plan addressing a wider array of issues, e.g., interconnections. Smaller systems should review the recommended plan content and determine what information is relevant and necessary for the type, size, and complexity of the system.

If water systems receive bulk water deliveries, the water must be from a DES-approved water source. It must be hauled by transport meeting He-P 2103.10, Storage and Transportation of Bulk Water for Bottling, and systems must notify the DWGB before any bulk water is delivered to customers. The DWGB has also updated the bulk water haulers fact sheet WD-DWGB-18-2. If the older version of this fact sheet is in your existing plan, please replace it with the updated version. In addition, please update the bureau name from "Water Supply Engineering Bureau" to "Drinking Water and Groundwater Bureau" along with the new website address, www.des.nh.gov. All of the documents mentioned above can be found on the Security and Emergency Planning website at www.des.nh.gov/organization/divisions/water/dwgb/index.htm. Please contact Johnna McKenna at (603) 271-7017 or johnna.mckenna@des.nh.gov with any questions or for assistance. •

Attend the 2008 New Hampshire Drinking Water Exposition and Trade Show

The New Hampshire Water Works Association (NHWWA) is again offering the New Hampshire Drinking Water Exposition and Trade Show. This year's Expo will be held Wednesday, October 29, 2008, at the **Center of New Hampshire Radisson, 700 Elm Street, Manchester,** which is the same location as last year's show. The Expo will run from 8 a.m. to 4 p.m. and feature over 100 exhibitors and 25 interesting and informative seminars.

Seminars will include topics such as managing potable water quality, treatment process selection, the Groundwater Rule, Dig Safe, and much more. The seminars are being conducted by consultants, vendors, water system representatives, and DWGB staff.

The fee to attend the educational seminars is only $25 this year due to a grant supplied by DES. Technical contact hours (TCHs) will be awarded for attending the seminars. These TCHs may be used to satisfy DES's water system operator certification renewal requirements. Admittance to the exhibition hall and displays is FREE!

The Expo is designed for water supply professionals, so please try to attend and enjoy a day of fun, prizes, seminars, and exhibits. Watch your mail for more details. If you have any questions about the Expo, contact NHWWA at (603) 415-3959 or via e-mail at NHWWA@worldpath.net. •

2009 Local Source Water Grant Applications Available

Applications for the next round of Local Source Water Protection grants are now available on the DES website at www.des.nh.gov/organization/divisions/water/dwgb/dwspp/categories/grants.htm and are due by November 3, 2008. Postcards announcing the availability were mailed to water systems, regional planning commissions and consultants in June. Applicants can receive up to $20,000 to develop and implement programs to protect existing sources of drinking water. For questions regarding the grant program, please contact Johnna McKenna at (603) 271-7017 or johnna.mckenna@des.nh.gov. •

Important Bacteria Sampling Information!!

Repeat Samples

Whenever a system's routine bacteria sample shows the presence of coliform bacteria, a set of repeat samples is required. When a system has more than one coliform-positive routine sample and submits all the required repeat samples on one form, it becomes very difficult for the DWGB staff to determine which repeat samples are associated with which coliform-positive routine sample. Therefore, when submitting repeat samples for two or more positive routine samples, please use a separate form for **each set** of repeat samples. For example, if you must submit repeat samples for two positive routine samples, you should submit two reporting forms to the lab: one form listing the first routine positive site and the remaining repeat samples associated with that site, and a second form listing the other routine positive site and the remaining repeat samples associated with that site.

If your system is required to take four repeat samples after a routine positive total coliform, DES strongly suggests choosing the source as one of the repeat sample locations. Include the word "source" in the sampling site description section on the reporting form. This will facilitate a smoother transition when the new EPA Groundwater Rule goes into effect on December 1, 2009. Please contact Selina Makofsky at (603) 271-4109 for questions regarding the EPA Groundwater Rule.

Obtaining the Right Forms Online

Be sure to use the proper forms that are available online through the Public Water System Query at DES's Onestop website, at www2.des.state.nh.us/OneStop/Public_Water_Systems_Query.aspx. Once on the DES OneStop website do the following:

1. Insert your system's EPA# at the prompt, then click "Submit Query."
2. Then click on the calendar page icon to open your master sampling schedule.
3. In the Bacteria section, click on the "hot button" entitled *Multi-use Form*. This form should be used when taking repeat samples or multiple routine samples.

Reduction of Repeat Samples

Systems with fewer than 20 service connections experiencing four or more positive routine samples may seek a reduction in the number of repeat samples required. Prior to collecting the repeat samples, please contact Barbara Davis at (603) 271-2542 if you wish to discuss the options for reducing the number of repeat samples to be submitted. •

Do you have an idea for an article?
Contact Pierce Rigrod.
(603) 271-0688
pierce.rigrod@des.nh.gov

Need Cheap Insurance?

How about Mutual Aid for Municipal Water Systems?

Whatever the emergency, tornadoes, floods, or ice storms, the N.H. Public Works Mutual Aid (NHPWMA) program is a ready resource available to provide assistance to municipal water systems during a crisis. Mutual Aid programs continue to grow both in New Hampshire and across the nation. Currently, 31 states have developed mutual aid programs and formed a network commonly known as the Water and Wastewater Agency Response Network (WARN). The NHPWMA program is available to municipal water and wastewater systems, including village districts. Private water systems are currently not able to join the program; however, efforts are underway to allow private systems to receive assistance. This year over 61 water and wastewater systems have joined the program.

The NHPWMA program is a network of members who establish partnering agreements to assist one another during emergencies. These agreements usually include a protocol for requesting and receiving aid. The responsibility for responding to incidents, both natural and manmade, begins at the local level, but an emergency may exhaust a system's resources. Members of NHPWMA may use an emergency pager or may directly contact other members for help, such as additional equipment or personnel. Benefits of being a member include: reducing vulnerabilities of participating communities; enabling prompt and effective response; providing rapid and orderly rehabilitation of infrastructure; allowing exchange of specialized supplies, equipment, and personnel; and, under declared disasters, facilitating reimbursement from the Federal Emergency Management Agency.

The first N.H. Mutual Aid Conference was held this year on April 25. With over 60 attendees, it was a successful event, with appearances by Governor John Lynch, Assistant Director of Emergency Management Kathryn Doutt, and DES Assistant Commissioner Michael Walls. You can visit the program's website at www.NHWARN.org or www.t2.unh.edu/ma. David Danielson, Forecee Advocacy, is also available to meet on-site with systems until December 31, 2008, to explain the program and assist with signing up. If you would like to set up a meeting with Dave, please contact him at (603) 714-5430 or D.Danielson@comcast.net. •

DWGB Implements Electronic Process for Transfer of Sample Data

Over the past year, the DWGB has been working on processes to reduce paperwork and automate the transfer of all data between public water systems and the DWGB. These processes will improve the timeliness of data submissions and accuracy of transferred data.

One of the processes we are currently developing is the electronic transfer of sample data directly from the laboratory to the DWGB Monitoring and Enforcement section's database. Phase I of development implements the electronic transfer of sample data from the DES state laboratory. This phase is nearly complete. Phase II will expand the process to include sample data from private laboratories.

The electronic transfer process will allow information on the Analysis Request Form (chain of custody form) that is submitted with a sample, as well as the analytical results, to be transmitted directly to the DWGB's database. For that reason, the chain of custody form must reflect the system's current schedule and all required fields must be complete and accurate. If information, such as sample type or sampling site, is missing or does not match what is in our database, the sample submission may be rejected and returned to the laboratory and you for correction and resubmission.

To avoid potential rejection of samples, we strongly suggest that systems use the preprinted chain of custody forms. The most current sampling schedule and preprinted forms are available from the OneStop link www2.des.state.nh.us/OneStop/Public_Water_Systems_Query.aspx. Enter the system's EPA ID#, then click on the calendar icon, "31," for the system's Master Sampling Schedule and Analysis Request Forms.

It is imperative that you contact the DWGB Monitoring and Enforcement section at (603) 271-0893 before taking a sample from a location that is not on the system's Master Sampling Schedule. If you have questions about where to take repeat samples for bacteria, please contact us at (603) 271-2542.

Your laboratory will receive an email and status report for every sample that you submit. The status report shows whether the sample was accepted or rejected. You will receive an email and report if your samples were rejected or had errors. So, be sure we have your current email address on file.

To provide us with your email address, contact Linda Thompson at (603) 271-3544 or linda.thompson@des.nh.gov. Or, if you are a registered OneStop data provider, you can use the Update Public Water System Contacts link on the DWGB website (www.des.nh.gov/organization/divisions/water/dwgb/index.htm) to update your contact information. If you are not a registered OneStop data provider, contact Linda Thompson or visit OneStop (https://www2.des.state.nh.us/OnestopDataProviders/DESLogin.aspx) to apply for a PIN and password. You do not need to be a registered data provider to access the Master Sampling Schedule in OneStop.

If you are a private laboratory and have questions or are interested in participating as a pilot for the electronic transfer process, contact Laurie Cullerot at (603) 271-2954. •

UNH Develops Low Impact Development Project Inventory

Lack of local implementation examples is often viewed as a limiting factor to more widespread acceptance and use of innovative stormwater controls.

To help municipalities and site designers overcome this barrier, the University of New Hampshire Stormwater Center (UNHSC) with support from the Maine and Connecticut Nonpoint Education for Municipal Officials (NEMO) programs has developed a web-based inventory of innovative stormwater management practices in the region. The UNHSC-NEMO Innovative Stormwater Management Inventory is a searchable and modifiable on-line directory of innovative stormwater control strategies implemented throughout New England. It includes the location and project details of a variety of low impact development (LID) techniques that have been put into practice across the New England region, including: porous pavements, bioretention and rain garden systems, gravel wetlands, green roofs, and innovative retrofits.

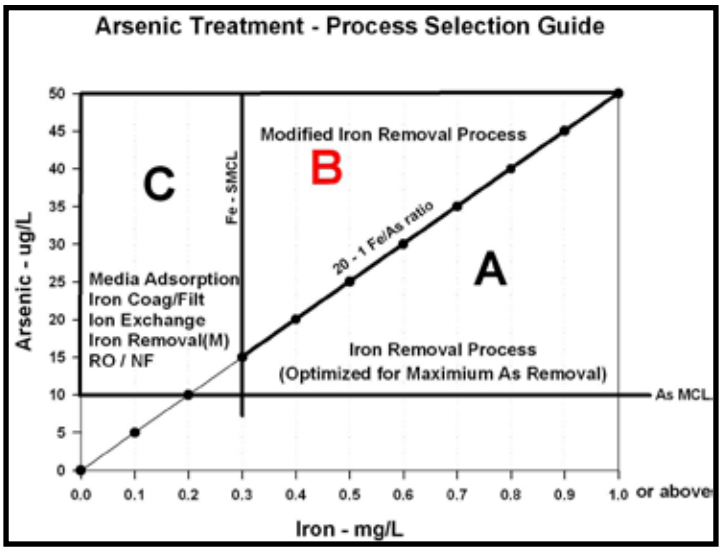
The purpose of this inventory is to provide real world examples of successful stormwater management installations throughout the region in an effort to promote the application of more effective controls.

LID design originated in Maryland in the 1990s to reduce the negative impacts of traditional development on watershed areas and receiving waters. The goal of LID is to limit generation of runoff from developed areas and preserve the natural or predevelopment hydrology of a site.

You can review LID stormwater projects already implemented in your town by visiting the UNHSC-NEMO Innovative Stormwater Management Inventory website at www.erg.unh.edu/stormwater/index.asp. If you know of any LID projects that should be listed, use the online submission form to upload some basic information about the project. •

Arsenic ABCs - Are You Using Your Iron?

EPA's Arsenic Demonstration Program has invested approximately $23 million over the past four years to establish treatment parameters and costs to help small water systems address elevated levels of arsenic. The inset, "Arsenic Treatment Process Selection Guide," shows the critical role of iron in arsenic treatment. Iron oxides (rust) act as a natural magnet for arsenic. In fact, iron-arsenic co-precipitation is most efficient when both contaminants are oxidized simultaneously, such as with the addition of common water treatment chemicals such as chlorine or potassium permanganate and water pH at or below 7.5.



When naturally occurring iron is present, co-precipitation may be used to cost effectively remove both contaminants in one treatment process. If you are not using your iron to assist with arsenic removal, you may be incurring higher treatment costs than needed. Just check your raw water quality and locate the point where your raw water's arsenic and iron concentrations meet on the Arsenic Treatment - Process Selection Guide to know which technologies are best suited to your well water quality.

Some small systems in New Hampshire have been able to retrofit their existing system to take advantage of this fact. One system rebed its adsorption vessels with oxidative greensand media after just six months of service, in favor of using its natural iron (~0.3 ppm) coupled with mild acid pretreatment, to address iron, arsenic, and manganese in a single filtration step. Another exhausted three successive batches of adsorptive media (at three months of service per batch) until they discovered they were treating all As-III and high levels of phosphate (~0.15 ppm as P). Three years and four contract operator firms later, volunteer board members have taken charge to oversee their new iron-arsenic-manganese co-precipitation/filtration system, and to ensure their operating procedures are better documented and followed.

If there is no iron-arsenic co-occurrence in your raw water, and you are a water system equipped with a central leachfield or sanitary sewer, such as a school or business, you may opt to rebed with tried and true regenerable anion exchange resin, if and when adsorptive media replacement costs become excessive.

If you think your treatment is not yet optimized, please take a minute to re-check your water quality and contact cynthia.klevens@des.nh.gov or (603) 271-3108 for more information. Visit the EPA Arsenic Demonstration Program at www.epa.gov/ORD/NRMRL/wswrd/dw/arsenic/. •

Meet Our Newest Employees

The DWGB welcomes two new employees: James Tilley and Adam Torrey.

James is working in the Source Water Protection group and is assisting in the development of the State Water Resources Primer. He is also helping to ensure that water system owners comply with the DWGB Chemical Monitoring Waiver Program.

Adam coordinates and supervises monitoring and enforcement related to microbiological, disinfection by-product, and surface water treatment rules for the DWGB.

Contact James at (603) 271-0657 or james.tilley@des.nh.gov and Adam at (603) 271-0672 or adam.torrey@des.nh.gov. •

Advanced Surface Water Supply Water Quality Class Scheduled for December

New Hampshire Water Works Association will offer its advanced surface water supply water quality class for Thursday, December 4, and Tuesday, December 9, 2008. The class consists of two morning sessions and covers source water protection; water quality issues, including bacterial and algal contamination; watershed management plans; watershed and source water sampling; design and maintenance of intake structures; raw water and finished water sampling, and much more.

The class is designed specifically for surface water system operators and technical staff, although it is open to all who are interested.

Certified operators can look for the notice and registration form in the mail in October. •

Revised Water Well Board Rule and Other Rules that Impact Public Water System Wells

New Water Well Board Rules

The N.H. Water Well Board recently revised its rules, effective June 12, 2008, and the following change will affect public water systems.

Grouting of Well Casings [We 602.06 (k)]. Well casings must be grouted for all new wells constructed as part of a public water supply system. This applies to large and small community water systems and to non-community public water supply wells, which include a broad range of public or privately-owned commercial and institutional facilities.

DES Rules Relating to Yield Improvement of Bedrock Wells Serving Community Water Systems

It is DES's experience that the production capacity of wells drilled in bedrock has a tendency to diminish over time. Usually the loss in well capacity is caused by mineralization and incrustation of the rock fractures or fine sediments and rock fragments plugging the fractures. Hydrofracturing is a common method used to rehabilitate bedrock wells to regain lost well capacity. The success with this practice is mixed.

An owner of a small community water system, serving a population of 25-1,000 without street hydrant protection, that proposes hydrofracturing a small production well, producing less than 57,600 gallons in any 24 hour period, to regain lost well capacity, but not to expand the water system, must comply with the requirements of Env-Dw 301.25. This includes submitting a request to DES to hydrofracture the well and obtaining approval from DES. Large production wells, producing 57,600 or greater gallons in any 24 hour period, are subject to the yield and water quality testing requirements of Env-Dw 302.

All community water system wells that are hydrofractured to support expansion of the water system or to increase the well's yield beyond that previously established are considered new production wells and must comply with all of the requirements for new wells. See Env-Dw 301 for small production wells for small community water systems and Env-Dw 302 for large production wells.

To read the full text of the Water Well Board rules, We 100-1000, visit www.des.nh.gov/organization/commissioner/legal/rulemaking/index.htm#acouncil. The well siting rules, Env-Dw 301 and 302, are at www.des.nh.gov/organization/commissioner/legal/rules/index.htm#drinking. For more information on the Water Well Board rules, contact Rick Schofield at (603) 271-1974 or richard.schofield@des.nh.gov. Questions on yield improvement and other well siting rules should be directed to Stephen Roy at (603) 271-3918. •

DRINKING WATER SOURCE PROTECTION PROGRAM
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